



Global Genomic Medicine Collaborative

4th International G2MC Meeting *Genomic Medicine Implementation in Low Resources Settings* November 28-30, 2018

President Hotel
4 Alexander Rd, Bantry Bay, Cape Town, 8001, South Africa

DAY 1: NOVEMBER 28, 2018

08:00-13:00	<u>Registration [Conference Center Foyer]</u>
08:00-12:00	<u>Young Investigators' Forum [President Ballroom]</u>
08:00-08:05	Welcoming Remarks - Chair, YIF Planning Committee Teri Manolio National Human Genome Research Institute, USA
08:05-10:55	Young Investigator Presentations
10:55-11:10	COFFEE BREAK
11:10-11:40	Career Development Panel Moderator: Teri Manolio, NHGRI, USA <u>Panel members</u> Victoria Nembaware University of Cape Town, South Africa Gabriela Repetto Universidad del Desarrollo, Chile Surakameth Mahasirimongkol Ministry of Public Health, Thailand Cedrik Ngongang University of Cape Town, South Africa
11:40-12:00	Young Investigator Flash Talks

- 12:00-13:30 **Lunch and Poster Session [President Restaurant and Tea Venue]**
- 13:30-13:45 **Welcoming Remarks [President Ballroom]**
Glaudina Loots, Director
Department of Science and Technology, South Africa
- 13:45-14:00 **G2MC co-chairs**
Geoffrey Ginsburg
Duke University, USA
George Patrinos
University of Patras, Greece
- 14:00-14:05 **Keynote Introduction - George Patrinos**
- 14:05-14:35 **Keynote: ‘Genome Diversity in Africa - lessons and applications to genomic medicine’**
Vanessa Hayes
University of Sydney, Australia

Session I: Genomic Medicine Implementation in Africa

Moderator: Ambroise Wonkam, University of Cape Town, South Africa

- 14:35-16:25 **“Genomic Medicine in Africa: Promise Problems, Prospects”**
Ambroise Wonkam
University of Cape Town, South Africa
- “Neurogenomics in Mali”**
Guida Landoure
University of Bamako, Bamako, Mali
- “Advancement of medical genetics and genomic medicine in Rwanda”**
Leon Mutesa
University of Rwanda, Rwanda
- “H3Africa and its potential role in African Genomic Medicine”**
Nicola Mulder
University of Cape Town, South Africa

“Development of Genomic Medicine in Egypt”

Ghada El-Kamah

National Research Centre, Cairo, Egypt

“Cancer Genomics Initiatives in Africa”

Yonglan Zheng

University of Chicago, USA

16:25-17:05

Panel Discussion

Moderator: Ambroise Wonkam, University of Cape Town, South Africa

Guida Landoure

University of Bamako, Bamako, Mali

Leon Mutesa

University of Rwanda, Rwanda

Nicola Mulder

University of Cape Town, South Africa

Ghada El-Kamah

National Research Centre, Cairo, Egypt

Yonglan Zheng

University of Chicago, USA

17:05-17:30

COFFEE BREAK

Session II: Genomic Medicine in the Developing World

Moderator: Catalina Lopez-Correa, Genome British Columbia, Canada

17:30-18:40

“From Emerging Economies to First Nations: Genomic Medicine for ALL”

Catalina Lopez-Correa

Genome British Columbia, Canada

“Paths Towards an Innovation Economy”

Karimah Es Sabar

Quark Venter, Canada

“Genomic Medicine in Sri Lanka”

Vajira H. W. Dissanayake

University of Colombo, Sri Lanka

“Genetics of breast cancer in Chilean women”

Pilar Carvallo

Pontifical Catholic University of Chile, Chile

“Rare Diseases in Latin America: challenges and opportunities”

Gabriela Repetto

Universidad del Desarrollo, Chile

“Reflections of a Biomedical Scientist on 4 Continents in Interdisciplinary Biomedical Research”

Juergen Reichardt, PhD

Yachay Tech University, Ecuador

18:40-19:10

Panel Discussion

Moderator: Catalina Lopez-Correa, Genome British Columbia, Canada

Karimah Es Sabar

Quark Venter, Canada

Vajira Dissanayake

University of Colombo, Sri Lanka

Pilar Carvallo

Pontifical Catholic University of Chile, Chile

Gabriela Repetto

Universidad del Desarrollo, Chile

Juergen Reichardt

Yachay Tech University, Ecuador

Qais Al Duwairi

Dasman Diabetes Institute, Kuwait

20:00

WELCOME COCKTAIL RECEPTION [President Hotel - Pool area]

DAY 2: NOVEMBER 29, 2018

- 08:00-08:05 **Keynote Introduction [President Ballroom]**
Geoffrey Ginsburg
Duke University, USA
- 08:05-08:35 **Keynote: “A multiomics approach to identifying predictive biomarkers and new biology for preterm birth and related newborn mortality contributors using cohorts from Africa and South Asia”**
Farhad Imam
Bill & Melinda Gates Foundation, USA

Session III: Genotyping Cost-Effectiveness Across the Globe

Moderator: Nicola Mulder, University of Cape Town, South Africa

- 08:35-09:45 **‘Precision Medicine in Thailand’**
Surakameth Mahasirimongkol
Ministry of Public Health, Thailand
- “Design of the H3Africa array for African populations”**
Nicola Mulder
University of Cape Town, South Africa
- “Comparing Cost-effectiveness of SA/Africa to the rest of the world”**
Reinhard Hiller
Center for Proteomic & Genomic Research, South Africa
- “Determining the value of pharma-genomics evidence”**
Christina Mitropoulou
Golden Helix Foundation, UK
- 09:45-10:15 **Panel Discussion**
Moderator: Nicola Mulder, University of Cape Town, South Africa
Surakameth Mahasirimongkol
Ministry of Public Health, Thailand
Reinhard Hiller
Center for Proteomic & Genomic Research, South Africa
Christina Mitropoulou
Golden Helix Foundation, UK
- 10:15-10:45 **BREAK**

Session IV: Genomic Medicine and Infectious Diseases

Moderators: Raj Ramesar, University of Cape Town, South Africa

10:45-12:05

“Genomics and the Control of Ebola Epidemic”

Christian Happi Tientcha

Redeemer’s University, Nigeria

“Genomics and Podoconiosis: Public Health Translation to Improve Child Health in a Low-income Setting”

Fasil Tekola

National Institutes of Health, USA

“Malaria and Sickle Cell Disease”

Julie Makani

Muhimbili University, Tanzania

“Co-evolution between Mycobacterium and humans influences tuberculosis severity”

Scott Williams

Case Western Reserve, USA

“Host genomics and upper respiratory diseases”

Geoffrey Ginsburg

Duke University, USA

“Microbiome of the placenta in pre-eclampsia”

Vajira Dissanayake

University of Colombo, Sri Lanka

12:05-12:35

Panel Discussion

Moderator: Raj Ramesar, University of Cape Town, South Africa

Christian Happi Tientcha, Redeemer’s University, Nigeria

Fasil Tekola, National Institutes of Health, USA

Julie Makani, Muhimbili University, Tanzania

Scott Williams, Case Western Reserve, USA

Geoffrey Ginsburg, Duke University, USA

Vajira Dissanayake, University of Colombo, Sri Lanka

12:35-14:00 **LUNCH BREAK [President Restaurant]**

Lunch meeting for Evidence Writing Group [Boardroom]

co-chairs:

Marc Abramowicz

Geneva University Hospitals (HUG), Switzerland

Fahd Al-Mulla

Kuwait University, Kuwait

Session V: Pharmacogenomics

Moderator: George P. Patrinos, University of Patras, Greece

14:00-15:30

“Pharmacogenomics In Africa: considerations for populations health in transition”

Collet Dandara

University of Cape Town, South Africa

“Ubiquitous Pharmacogenomics”

George Patrinos

University of Patras, Greece

“The Alliance for clinical trials in oncology: a cooperative group to achieve precision oncology through genomics”

Federico Innocenti

University of North Carolina at Chapel Hill, USA

“Pharmacogenomics Data Standardization and Governance”

Judit Kumuthini

Centre for Proteomics and Genomic Research, South Africa

“Population PGx in the Middle East: A perspective from Qatar”

Puthen Veettil Jithesh

Sidra Medical and Research Center, Qatar

“Challenges of clinical pharmacogenomics implementation and how to overcome”

Mohamed Nagy

Children’s Cancer Hospital, Egypt

“A European Union Perspective on Personalised Medicine”

Jean-Luc Sanne

European Commission, Belgium

15:30-16:00

Panel Discussion

Moderator: George P. Patrinos, University of Patras, Greece

Collet Dandara

University of Cape Town, South Africa

Federico Innocenti

University of North Carolina at Chapel Hill, USA

Judit Kumuthini

Centre for Proteomics and Genomic Research, South Africa

Puthen Veettil Jithesh

Sidra Medical and Research Center, Qatar

Mohamed Nagy

Children’s Cancer Hospital, Egypt

Jean-Luc Sanne

European Commission, Belgium

16:00

BREAK [Poster and Tea venue]

16:30-17:45

Breakout Groups

i) Education Working Group [President 1]

Vajira Dissanayake, University of Colombo, Sri Lanka

Bruce Korf, University of Alabama, USA

ii) Policy Working Group [Boardroom]

Dame Sue Hill, National Health Service, England

Andrea Belcher, Australia Genomics Health Alliance, Australia

iii) PGx Working Group: Clinical Implementation [President 2]

George Patrinos, University of Patras, Greece

iv) PGx Working Group: Evidence [President 3]

Federico Innocenti, University of North Carolina at Chapel Hill, USA

v) PGx Working Group: Policy [BA Lounge]

Puthen Veettil Jithesh, Sidra Medical and Research Center, Qatar

Mohamed Nagy, Children’s Cancer Hospital, Egypt

19:00 **Depart for Dinner [meet in hotel lobby]**

19:30 **DINNER**
Location: [Gold Restaurant](#)
15 Bennett Street, Green Point, 8005

DAY 3: NOVEMBER 30, 2018

07:00-08:15 **G2MC Steering Committee Meeting (by invitation only)**
[President Ballroom]

08:25-08:30 **Keynote Introduction [President Ballroom]**
Alan Shuldiner
Regeneron Pharmaceuticals, USA

08:30-09:00 **Keynote: “Mainstream introduction of genomics across a large public health system”**
Dame Sue Hill
National Health Service, England

09:00-09:15 **International Cohorts Summit**
Geoff Ginsburg
Duke University, USA

Session VI: Technology Implementations in Clinical Genomics

Moderator: Grant Wood, Intermountain Precision Genomics, Intermountain Healthcare, USA

09:15-10:35 **“Linking genomic data with administrative health data in a low resource setting”**
Nicki Tiffin, PhD
University of Cape Town, South Africa

“Family Health History Awareness: Tools for Enhancing Genetic Literacy”
Sula Hood, PhD
Indiana University-Purdue University Indianapolis, USA

“AI-driven clinical insights for genomic data interpretation in clinical care”

Martin Reese, PhD
Fabric Genomics, USA

“Inferring Patient Outcomes from the Combination of Genomic, Phenomic, and Clinical Data – a Project Proposal”

Marc Abramowicz, PhD, MD
Geneva University Hospitals (HUG), Switzerland

“Beyond the Heart Centre: 21st century Medicine in the Real World”

Alan Rabinowitz
PHEMI Systems
University of British Columbia, Canada

“Updates on HL7 FHIR Genomics and Related Activities”

Grant Wood
Intermountain Precision Genomics, Intermountain Healthcare, USA

10:35-11:05

Audience discussion of the presented Health IT project ideas
Moderator: Grant Wood, Intermountain Precision Genomics, Intermountain Healthcare, USA

11:05-12:15

LUNCH

Session VII: Professional Engagement and Workforce Development

Moderators: Vajira Dissanayake, University of Colombo, Sri Lanka & Bruce Korf, University of Alabama, USA

12:15-13:25

“Genomic Medicine Education of Medical Providers in India”

Ratna Puri
Sir Ganga Ram Hospital, New Delhi

“Competence and Community-Based Genomic Medicine Training in Africa”

Victoria Nembaware
University of Cape Town, South Africa

“Engaging healthcare providers in the practice of genomic medicine”

Kelly East

HudsonAlpha Institute for Biotechnology, USA

“The Genomic Medicine Workforce: The Global Landscape”

Bruce Korf

University of Alabama, USA

Vajira Dissanayake

University of Colombo, Sri Lanka

“ISCC: Promoting Collaboration in Genomics Education”

Rich Haspel

ISCC, Beth Israel Deaconess, USA

13:25-13:55

Panel discussion

Moderators: Vajira Dissanayake, University of Colombo, Sri Lanka & Bruce Korf, University of Alabama, USA

Ratna Puri

Sir Ganga Ram Hospital, New Delhi

Victoria Nembaware

University of Cape Town, South Africa

Kelly East

HudsonAlpha Institute for Biotechnology, USA

Rich Haspel

ISCC, Beth Israel Deaconess, USA

13:55-14:55

Report back from breakout groups

Alan Shuldiner, Moderator

Regeneron Pharmaceuticals, USA

i) Education Working Group

Vajira Dissanayake, University of Colombo, Sri Lanka

Bruce Korf, University of Alabama, USA

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Dame Sue Hill, National Health Service, England

Andrea Belcher, Australia Genomics Health Alliance, Australia

iii) PGx Working Group: Clinical Implementation

George Patrinos, University of Patras, Greece

iii) PGx Working Group: Evidence

Federico Innocenti, University of North Carolina at Chapel Hill,
USA

iv) PGx Working Group: Policy

Puthen Veettil Jithesh, Sidra Medical and Research Center,
Qatar

Mohamed Nagy, Children's Cancer Hospital, Egypt

v) Evidence Writing Group

Marc Abramowicz, Geneva University Hospitals (HUG),
Switzerland

Fahd Al-Mulla, Kuwait University, Kuwait

14:55-15:20

Leapfrogging with Precision Medicine

Elissa Pritchep, World Economic Forum

Dr. Gilles Ndayisaba, Rwanda Biomedical Centre, Rwanda

15:20-15:35

Young Investigator Poster Awards Announcement

15:35-16:00

Closing remarks and next steps (Co-Chairs of meeting)

George Patrinos, University of Patras, Greece

Ambroise Wonkam, University of Cape Town, South Africa

16:00

MEETING ADJOURNS

17:00-19:00

G2MC Executive Committee meeting (by invitation only)
[Boardroom]